

## Notice of Allowability

Application No.

10/550,342

Examiner

Allyson N. Trail

Applicant(s)

VULLINGS ET AL.

Art Unit

2876

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 9/20/2007.
2. ☒ The allowed claim(s) is/are 1 and 9-11.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 9-2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

**DETAILED ACTION**

***Amendment***

1. Receipt is acknowledged of the Amendment filed September 20, 2007.

***Remarks***

2. Claims 1 and 9-11 are currently pending. Independent claims 1 and 11 have been amended and 2-8 and 12 have been cancelled. In the previous Office action, claims 8-11 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. Currently amended claim 1 has been amended to incorporate the allowable subject matter of claim 8 in its entirety, claims 9 and 10 have been amended to depend from claim 1 and allowable claim 11 has been placed in independent form.

***Examiner's Amendment***

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The specification has been amended.

Add on page 1, under the heading "Method of determining at least one marking element on a substrate": --FIELD OF THE INVENTION--.

Add on page 1, under "The invention relates to a method of determining at least one marking element", the heading, --BACKGROUND OF THE INVENTION--.

Add on page 1, under "A disadvantage of such a known method is inter alia that the marking elements specifically introduced on the substrate for this purpose take up space, which is undesired with substrates becoming ever smaller. In addition, the specific marking element may be located remote from the position at which a component is subsequently to be placed, as a result of which the measurement may be inaccurate and time-consuming": the heading --SUMMARY OF THE INVENTION--.

Add on page 4, under "Such an embodiment is advantageous in that the fictitious marking element property already present on the substrate is used for correctly positioning components on the substrate.": the heading --BRIEF DESCRIPTION OF THE DRAWINGS--.

Add on page 4, under "Like parts in the Figures carry like reference numerals.": the heading --DETAILED DESCRIPTION--.

***Allowable Subject Matter***

4. Claims 1 and 9-11 are allowable over prior art.
5. The following is an examiner's statement of reasons for allowance: The best prior art of record, taken alone or in combination, fails to specifically teach or fairly suggest the method of determining at least one marking element on a substrate as disclosed in the current invention. Although prior art teaches methods of determining marking elements on substrates, the prior art of record taken fails to teach each of the specific claimed limitations including the method using the relative positions of at least two circles of selected area as fictitious marking elements, or the use of a component layer, conductive layer, and anti-soldering layer for determining the marking element. The

Art Unit: 2876

above disclosed limitation is not taught in prior art and moreover, one of ordinary skill in the art would not have been motivated to come to the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Allyson N. Trail* whose telephone number is (571) 272-2406. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (571) 272-2398. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [[allyson.trail@uspto.gov](mailto:allyson.trail@uspto.gov)].

*All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published*


Art Unit: 2876

*in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG*

89.

AJ

Allyson N. Trail  
Patent Examiner  
Art Unit 2876  
November 22, 2007

  
MICHAEL G. LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 200